

ARBITRATION SYSTEM AND METHOD HAVING A PACKET MEMORY FOR  
MEMORY RESPONSES IN A HUB-BASED MEMORY SYSTEM

ABSTRACT OF THE DISCLOSURE

A memory hub module includes a decoder that receives memory requests determines a memory request identifier associated with each memory request. A packet memory receives memory request identifiers and stores the memory request identifiers. A packet tracker receives remote memory responses and associates each remote memory response with a memory request identifier and removes the memory request identifier from the packet memory. A multiplexor receives remote memory responses and local memory responses. The multiplexor selects an output responsive to a control signal. Arbitration control logic is coupled to the multiplexor and the packet memory and develops the control signal to select a memory response for output.